36. (Reiterated) The preparation of claim 31, wherein the transgene is a knockout, or a knockin.

37. (Reiterated) The preparation of claim 35, wherein the transgene further comprises a promoter wherein the nucleic acid is under the control of the promoter.

38. (Reiterated) The preparation of claim 37, wherein the promoter is a tissue specific promoter.

39. (Reiterated) The preparation of claim 38, wherein the tissue-specific promoter is a promoter preferentially expressed in mammary gland epithelial cells.

40. (Amended) The preparation of claim 39, wherein the promoter is selected from the group consisting of a β-casein promoter, a β-lactoglobin promoter, whey acid protein promoter and lactalbumin promoter.

41. (Reiterated) The preparation of claim 37, wherein the promoter is a caprine promoter.

42. (Reiterated) The preparation of claim 35, wherein the nucleic acid encodes a polypeptide selected from the group consisting of a hormone, an immunoglobin, a plasma protein, and an enzyme.

43. (Reiterated) The preparation of claim 35, wherein the nucleic acid encodes a polypeptide selected from the group consisting of an α-1 proteinase inhibitor, an alkaline phosphotase, an angiogenin, an extracellular superoxide dismutase, a fibrogen, a glucocerebrosidase, a glutamate decarboxylase, a human serum albumin, a myelin basic protein, a proinsulin, a soluble CD4, a lactoferrin, a lactoglobulin, a lysozyme, a lactoalbumin, an

erythropoietin, a tissue plasminogen activator, a human growth factor, an antithrombin III, an insulin, a prolactin, and an α1-antitrypsin.

D2

44. (Amended) A purified preparation of embryonic or fetal caprine somatic cells obtained from an embryonic or fetal goat derived from a germ cell of a transgenic goat, wherein the somatic cells comprise a heterologous nucleic acid sequence integrated into their genome and wherein the heterologous nucleic acid sequence was also present and known to be expressed in the transgenic goat.

47. (Reiterated) The preparation of claim 44, wherein the heterologous nucleic acid encodes a human polypeptide.

48. (Reiterated) The preparation of claim 44, wherein the nucleic acid is a knockout, or a knockin.

49. (Reiterated) The preparation of claim 44, wherein the nucleic acid is under the control of a promoter.

50. (Reiterated) The preparation of claim 49, wherein the promoter is a tissue-specific promoter.

51. (Reiterated) The preparation of claim 50, wherein the tissue-specific promoter is a promoter preferentially expressed in mammary gland epithelial cells.

52. (Reiterated) The preparation of claim 51, wherein the promoter is selected from the group consisting of a β-casein promoter, a β-lactoglobin promoter, whey acid protein promoter and lactalbumin promoter.

53. (Reiterated) The preparation of claim 49, wherein the promoter is a caprine promoter.

54. (Reiterated) The preparation of claim 44, wherein the nucleic acid sequence encodes a polypeptide selected from the group consisting of a hormone, an immunoglobin, a plasma protein, and an enzyme.

55. (Reiterated) The preparation of claim 44, wherein the nucleic acid sequence encodes a polypeptide selected from the group consisting of an α-1 proteinase inhibitor, an alkaline phosphotase, an angiogenin, an extracellular superoxide dismutase, a fibrogen, a glucocerebrosidase, a glutamate decarboxylase, a human serum albumin, a myelin basic protein, a proinsulin, a soluble CD4, a lactoferrin, a lactoglobulin, a lysozyme, a lactoalbumin, an erythropoietin, a tissue plasminogen activator, a human growth factor, an antithrombin III, an insulin, a prolactin, and an α1-antitrypsin..

D4

56. (Amended) The preparation of claim 31, wherein the somatic cells are fibroblasts.

57. (Amended) The preparation of claim 56, wherein the fibroblasts are primary fibroblasts.

58. (Amended) The preparation of claim 56, wherein the fibroblasts are primary derived fibroblasts.

60. (Reiterated) The preparation of claim 31, wherein the germ cell is sperm from a transgenic goat.

D5

61. (Amended) A method of preparing an embryonic or fetal caprine somatic cell line comprising:

DS canceled

(a) obtaining a somatic cell from an embryonic or fetal goat derived from a germ cell of a transgenic goat, wherein the somatic cell comprises a heterologous nucleic acid sequence integrated into its genome and wherein the heterologous nucleic acid sequence was also present and known to be expressed in the transgenic goat; and

(b) culturing the somatic cell in a suitable medium such that a somatic cell line is obtained.

---

65. (Reiterated) The method of claim 61, wherein the heterologous nucleic acid sequence encodes a human polypeptide.

66. (Reiterated) The method of claim 61, wherein the sequence is a knockout, or a knockin.

67. (Reiterated) The method of claim 61, wherein the nucleic acid sequence is under the control of a promoter.

68. (Reiterated) The method of claim 67, wherein the promoter is a tissue-specific promoter.

69. (Reiterated) The method of claim 88, wherein the tissue-specific promoter is a promoter preferentially expressed in mammary gland epithelial cells.

70. (Reiterated) The method of claim 69, wherein the promoter is selected from the group consisting of a β-casein promoter, a β-lactoglobin promoter, whey acid protein promoter and lactalbumin promoter.

71. (Reiterated) The method of claim 67, wherein the promoter is a caprine promoter.

72. (Reiterated) The method of claim 61, wherein the nucleic acid sequence encodes a polypeptide selected from the group consisting of a hormone, an immunoglobulin, a plasma protein, and an enzyme.

73. (Reiterated) The method of claim 61, wherein the nucleic acid sequence encodes a polypeptide selected from the group consisting of an α-1 proteinase inhibitor, an alkaline phosphotase, an angiogenin, an extracellular superoxide dismutase, a fibrogen, a glucocerebrosidase, a glutamate decarboxylase, a human serum albumin, a myelin basic protein, a proinsulin, a soluble CD4, a lactoferrin, a lactoglobulin, a lysozyme, a lactoalbumin, an erythropoietin, a tissue plasminogen activator, a human growth factor, an antithrombin III, an insulin, a prolactin, and an α1-antitrypsin.

86. (Reiterated) The method of claim 61, wherein the somatic cell is a fibroblast.

87. (Reiterated) The method of claim 86, wherein the fibroblast is a primary fibroblast.

88. (Reiterated) The method of claim 86, wherein the fibroblast is a primary derived fibroblast.

90. (Reiterated) The method of claim 61, wherein the germ cell is sperm from a transgenic goat.

D6

91. (Amended) A method of preparing a genetically engineered cell line, comprising:

(a) inseminating a female recipient with semen from a transgenic non-human animal known to have a transgene present and expressed;

(b) obtaining a transgenic non-human embryo from the recipient;

(c) obtaining a somatic cell from the embryo; and,

(d) culturing the cell in a suitable medium,

such that a somatic cell line is obtained.--

Add claims 92-95.

-- 92. (New) The preparation of claim 31, wherein the cells are obtained from an embryonic goat on or after day 10 of embryogenesis.

93. (New) The preparation of claim 31, wherein the preparation is in an airtight container.

94. (New) The preparation of claim 44, wherein the cells are obtained from an embryonic goat on or after day 10 of embryogenesis.

95. (New) The preparation of claim 44, wherein the preparation is in an airtight container.--